

Appendix F
Environmental Justice

Environmental Justice

Summary

The SR 509: Corridor Completion/I-5/South Access Road Project build alternatives were evaluated for compliance with Presidential Executive Order (EO) 12898 and Federal Highway Administration (FHWA) Order 6640.23. These orders establish that it is federal policy to avoid, to the extent practicable, disproportionately high and adverse human health or environmental impacts on minority or low-income populations. For purposes of this analysis, National Environmental Policy Act (NEPA) significant adverse impacts are considered synonymous with high and adverse impacts as described in EO 12898 and FHWA Order 6640.23. As reported in the series of discipline reports prepared for the SR 509: Corridor Completion/I-5/South Access Road Revised Draft Environmental Impact Statement and Section 4(f) Evaluation (Revised DEIS), and further confirmed through discussions with the report authors, no significant adverse impacts are expected as a result of this project after proposed mitigation measures are implemented. Consequently, no project impacts can be described as high and adverse in the context of EO 12898 or FHWA Order 6640.23. Because no high and adverse impacts are expected to result from this project, this analysis concludes that no high and adverse human health or environmental effects are expected to fall disproportionately on minority or low-income populations. Therefore, the SR 509: Corridor Completion/I-5/South Access Road Project can be considered to be consistent with the policy established in EO 12898 and FHWA Order 6640.23.

Introduction

This report was prepared in compliance with Presidential EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, dated February 11, 1994; and FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (FHWA Order 6640.23), dated December 2, 1998. The purpose of this report is to determine whether or not disproportionately high and adverse human health or environmental effects of the proposed SR 509: Corridor Completion/I-5/South Access Road Project are likely to fall on minority and/or low-income populations. This report focuses on the populations that are located within the area potentially affected by the project build alternatives. In accordance with EO 12898 and FHWA Order 6640.23, this report documents where minority and low-income populations reside and examines where the high and adverse impacts (as reported in the various discipline reports that support the Revised DEIS) fall relative to these

populations. This report also discusses the specific outreach efforts made to involve minority and low-income populations in the decision-making process.

Description of the Proposed Action

The Federal Highway Administration (FHWA), the Washington State Department of Transportation (WSDOT), the Port of Seattle, King County, and the Cities of Des Moines and SeaTac propose to improve regional highway connections with an extension of SR 509 to serve future transportation needs in southwest King County and to enhance southern access to and from Seattle-Tacoma International Airport (Sea-Tac Airport) by means of a new South Access Road. (Figure F-1 shows the location of the project area and Figure F-2 shows the project vicinity.) To accommodate an interchange at I-5 and SR 509, improvements to I-5 between approximately South 210th Street and South 310th Street are also proposed. The SR 509: Corridor Completion/I-5/South Access Road Project would improve regional highway connections, enhance southern access to and from Sea-Tac Airport, and improve related local traffic circulation patterns.

Description of Project Alternatives

Three build alternatives (Alternatives B, C2, and C3) and a No Action Alternative (Alternative A) are considered in this Revised DEIS.

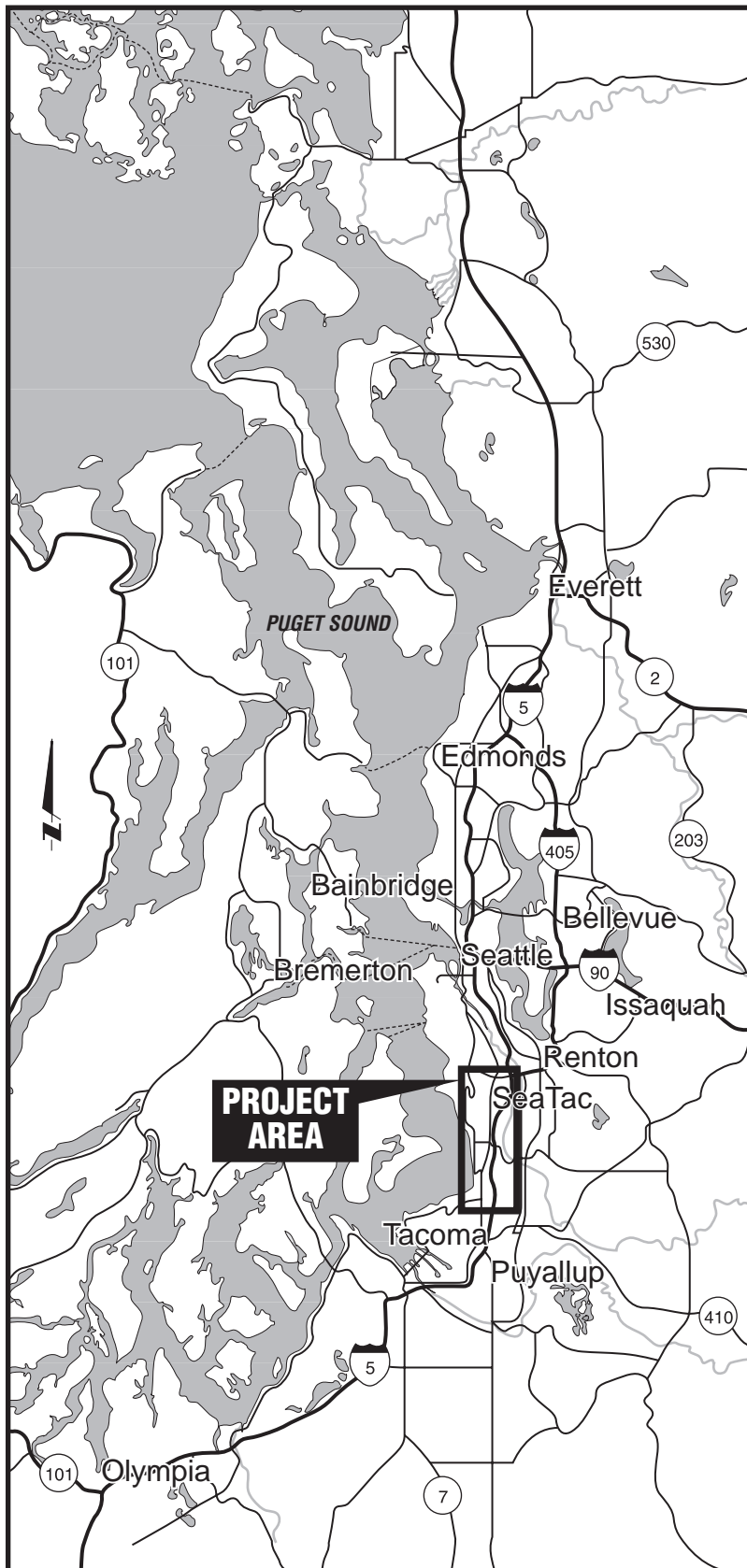
Alternative A (No Action)

The No Action Alternative (Figure F-3) represents the baseline conditions assumed to exist in the future regardless of whether the proposed project is constructed. Under the No Action Alternative, the SR 509 freeway extension, the South Access Road to Sea-Tac Airport, and the improvements to I-5 would not be built. This alternative, as well as the other alternatives, is defined in Chapter 2.

Features Common to All Build Alternatives

Each alternative for the SR 509 freeway extension would originate at approximately South 188th Street/12th Place South. The northern terminus of the South Access Road would be at the south end of the airport terminal drives. The southern terminus of the South Access Road would connect with the SR 509 freeway extension; the location and design of this connection would vary with each alternative. There would be interchanges at South 200th Street and 28th/24th Avenue South, but not at SR 99. Improvements to I-5 would be the same for all build alternatives.

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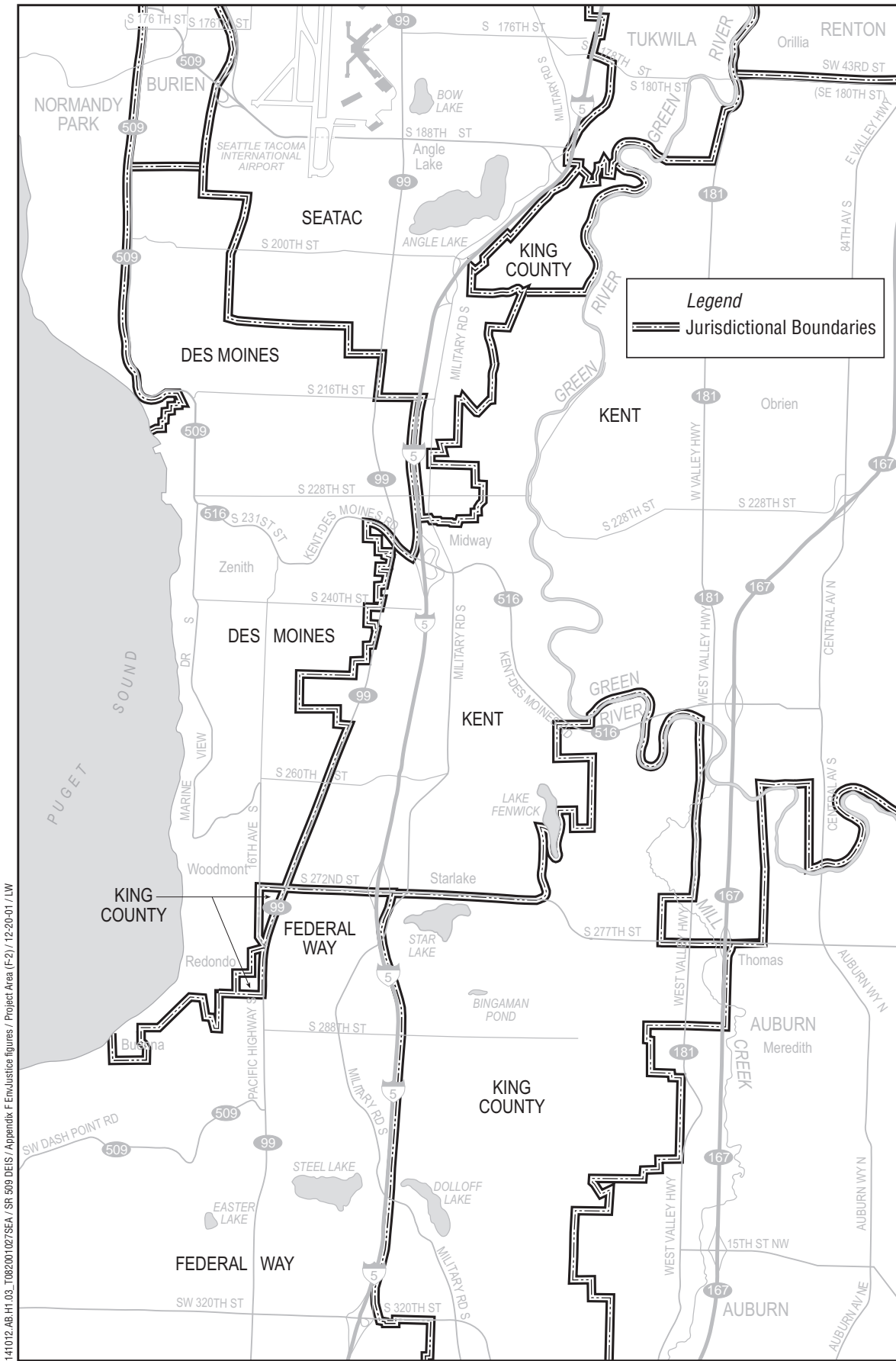
NOT TO SCALE

FIGURE F-1

Project Area Location Map



SR 509: Corridor Completion/
I-5/South Access Road
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141012.AB.H1.03_T082001027SEA / SR 509 DEIS / Appendix F EnvJustice figures / Project Area (F-2) / 12-20-01 / LW

0 1900 3800
Scale in Feet



FIGURE F-2
Project Area



SR 509: Corridor Completion/I-5/South Access Road
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SR 509 Mainline/South Access Road

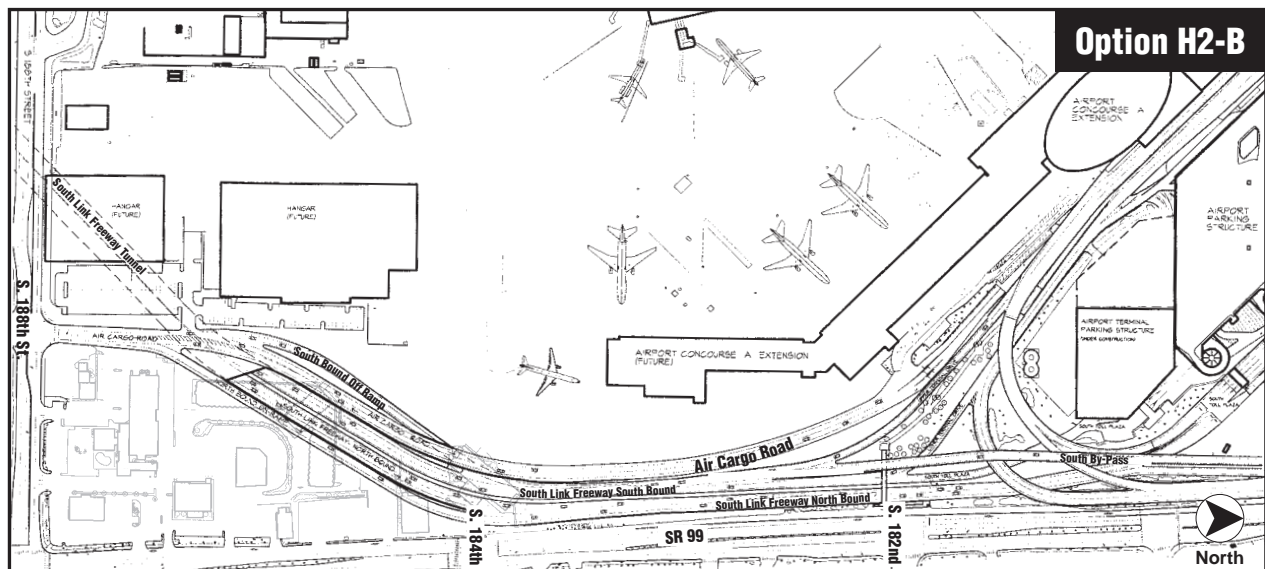
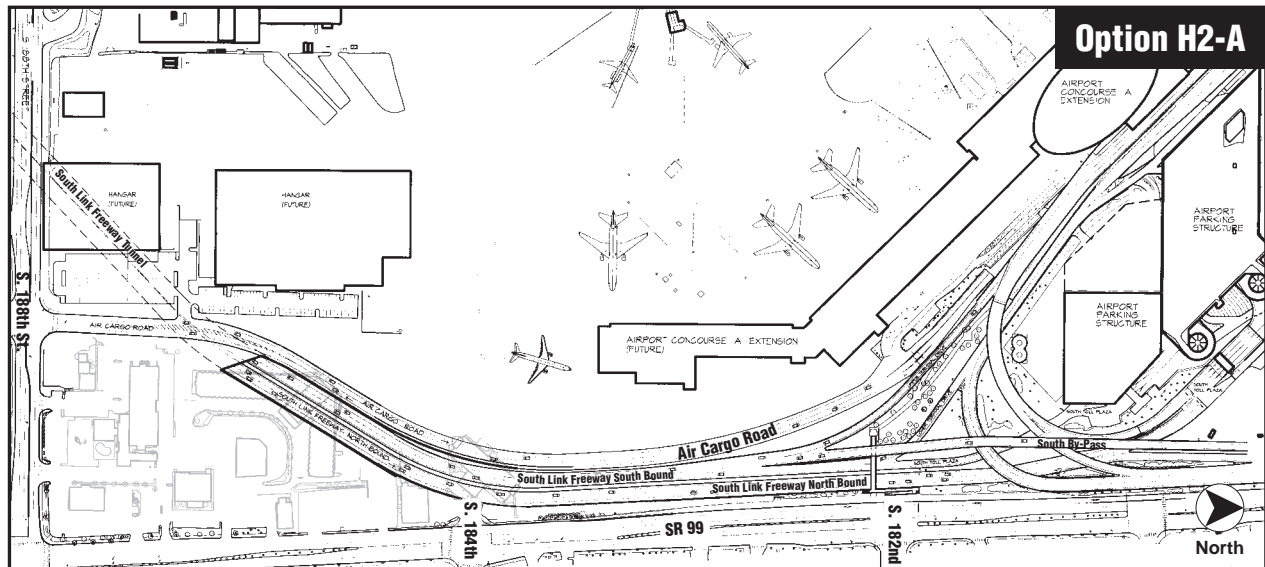
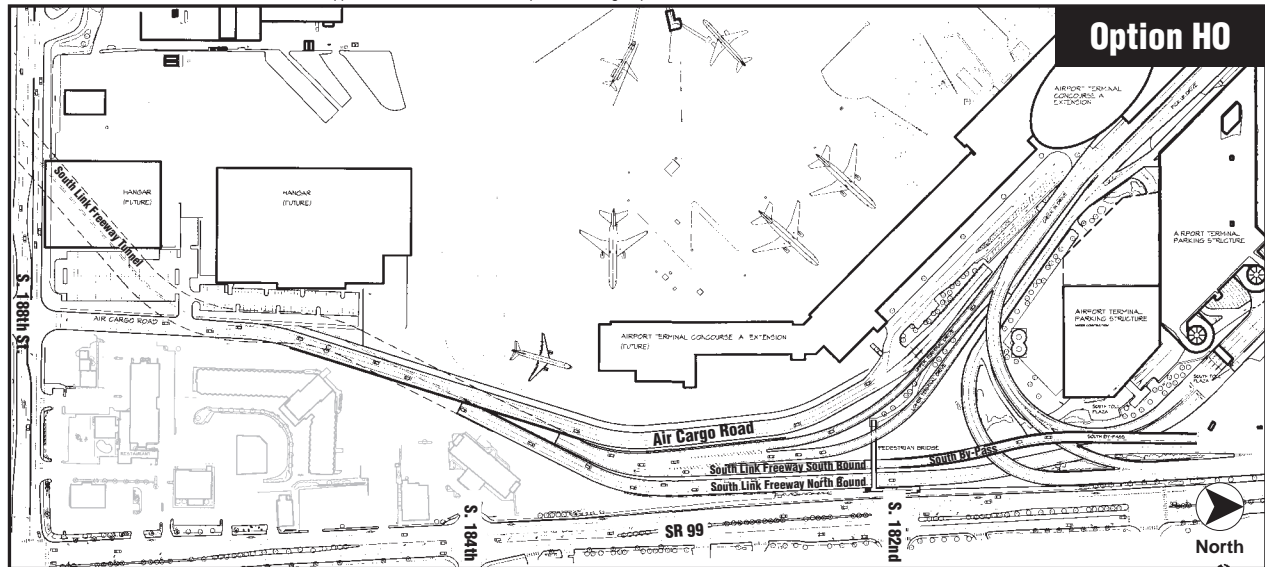
The configuration of the SR 509 freeway extension would be six lanes: two general purpose travel lanes and an inside high-occupancy vehicle (HOV) lane in each direction. The South Access Road would consist of two general purpose lanes in each direction, for a total of four lanes. In general, right-of-way widths would be at least 200 feet for the SR 509 freeway extension and at least 120 feet for the South Access Road. The SR 509 freeway extension would be designed to level of service (LOS) D and a speed of 70 miles per hour (mph). The South Access Road would be designed to LOS D and a speed of 35 to 45 mph.

South Airport Link

The South Airport Link, the last 1,000 feet of roadway connecting the South Access Road to the existing airport roadways, has three design options. At the south end, each design option crosses beneath South 188th Street and the southeast corner of Sea-Tac Airport via a tunnel. At the north end, the design options would maintain both southbound and northbound connections from the upper and lower terminal drives. Under Design Option H0, Air Cargo Road and the South Access Road would be "stacked" via an extended "S"-curve tunnel structure (Figure F-4). Under Design Option H2-A, Air Cargo Road and the South Access Road would generally parallel each other and would be separated by medians (Figure F-4). Design Option H2-B would be essentially the same as Design Option H2-A, except that it would provide local access routes for northbound and southbound traffic at the intersection of South 188th Street and 28th Avenue South (Figure F-4).

Improvements to I-5

The southbound improvements to I-5 would include two new collector-distributor (C/D) lanes between the SR 509 convergence and SR 516, two new auxiliary lanes from SR 516 to South 272nd Street, and a new auxiliary lane from South 272nd Street to approximately South 310th Street, where the proposed project would match with an auxiliary lane to be constructed for the Sound Transit I-5 @ South 317th Street Direct Access Ramp project. On northbound I-5, a new auxiliary lane would extend between South 272nd Street and the SR 516 interchanges, and two new C/D lanes would start at the SR 516 interchange to serve I-5 traffic exiting to SR 509 and SR 516 traffic entering I-5. In addition, a South 228th Street extension and underpass would be constructed, providing a direct connection to northbound I-5 from South 228th Street and from southbound I-5 to South 228th Street. Figure F-5 presents a schematic of the I-5 improvements. These improvements would cover approximately 6.7 miles.



0 100 200
Approx.
Scale in Feet

FIGURE F-4

South Airport Link Design Options



SR 509: Corridor Completion/I-5/South Access Road
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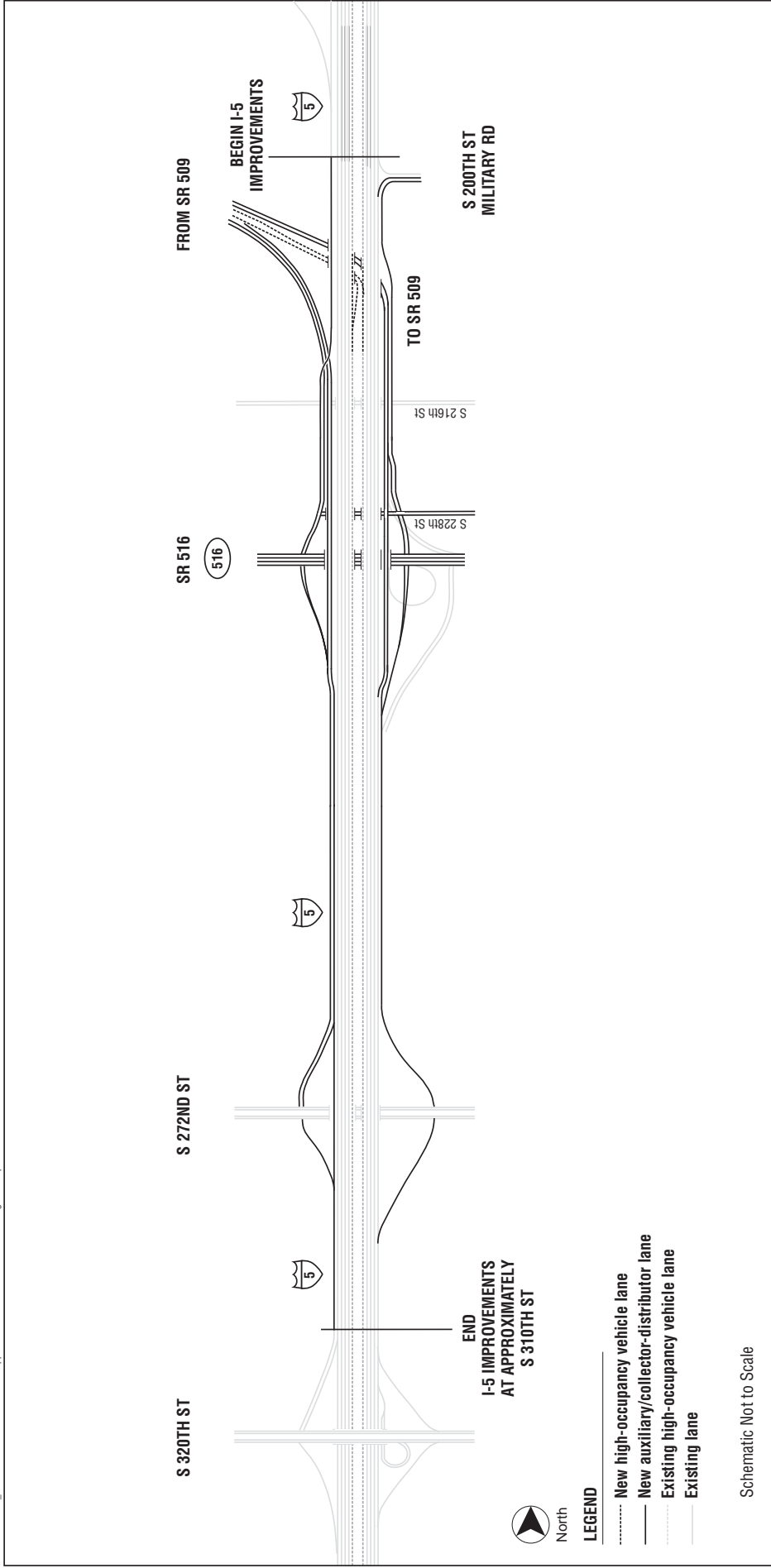


FIGURE F-5

Schematic Drawing of I-5 Improvements



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Alternative B

Under Alternative B, the SR 509 mainline would extend southward from its existing terminus at South 188th Street/12th Place South and intersect with I-5 in the vicinity of South 211th Street (Figure F-6). The freeway extension and the South Access Road would generally parallel each other in a north-south orientation on the west and east sides of Des Moines Creek Park, starting in the vicinity of South 208th Street and 24th Avenue South. The alignment would cross over Des Moines Creek and through Des Moines Creek Park at its narrowest point. The length of the SR 509 freeway extension (including the South Access Road) under Alternative B would be approximately 3.8 miles.

Alternative C2

Alternative C2 would begin at the existing SR 509 terminus at South 188th Street/12th Place South and intersect with I-5 in the vicinity of South 212th Street (Figure F-7). Alternative C2 would cross to the east on the north side of Des Moines Creek Park. The alignment would be elevated as it crosses the northeast corner of Des Moines Creek Park. The South Access Road interchange with SR 509 would be in the vicinity of South 208th Street and 24th Avenue South. The length of the SR 509 freeway extension (including the South Access Road) under Alternative C2 would be approximately 3.2 miles.

Alternative C3

Alternative C3 would begin at the existing SR 509 terminus at South 188th Street/12th Place South and intersect with I-5 in the vicinity of South 212th Street (Figure F-8). Like Alternative C2, Alternative C3 would cross to the east on the north side of Des Moines Creek Park; however, it would encroach further into the park than Alternative C2. Alternative C3 would also be elevated as it crosses the northeast corner of Des Moines Creek Park. The South Access Road interchange would occur in the vicinity of South 204th Street and 24th Avenue South. Under Alternative C3, the length of the SR 509 freeway extension, including the South Access Road would be approximately 3.5 miles.

Studies Performed and Coordination Conducted

Overview of EO 12898 and FHWA Order 6640.23

EO 12898, issued by President Clinton in 1994, requires that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations....” In his

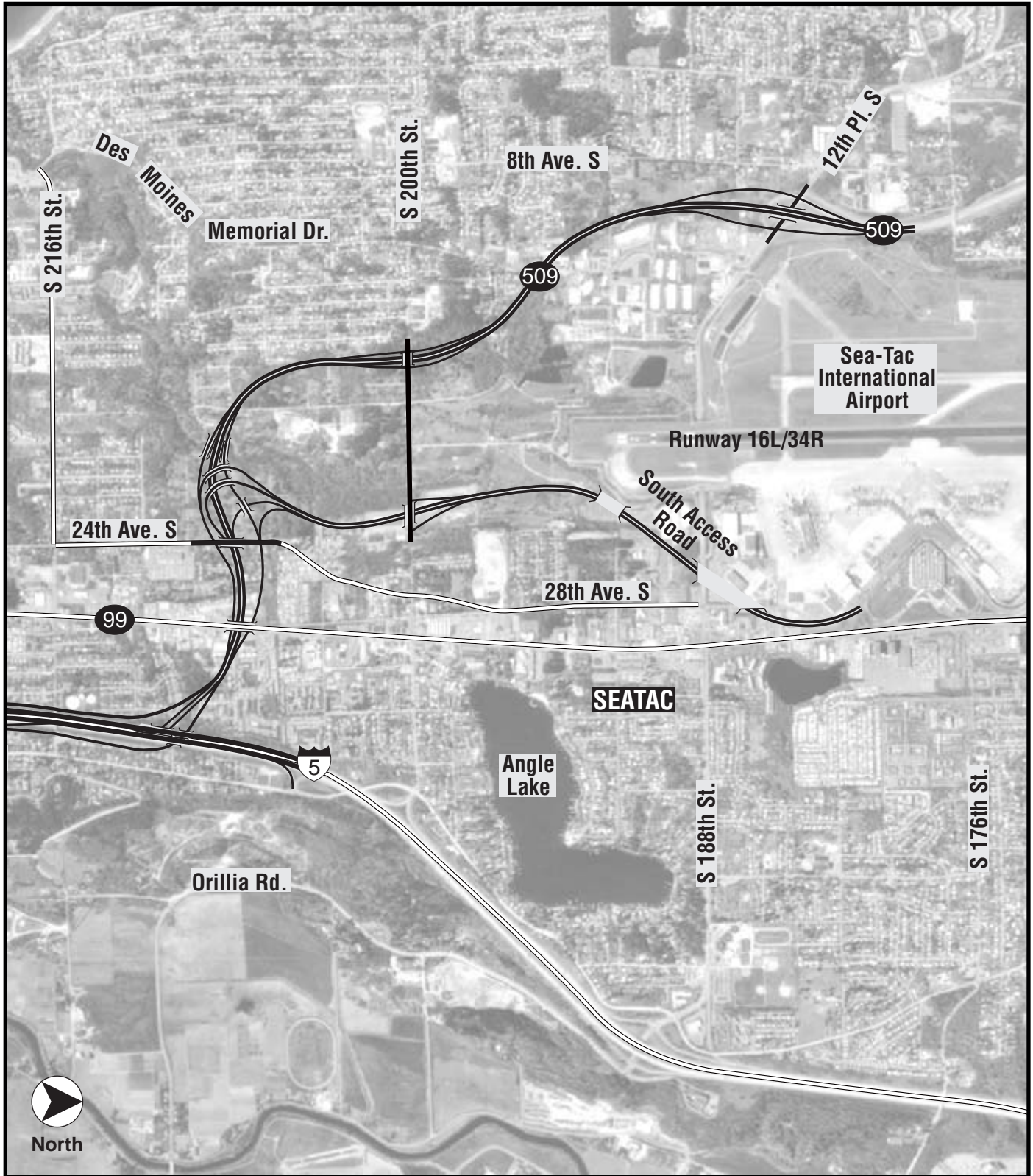


FIGURE F-6

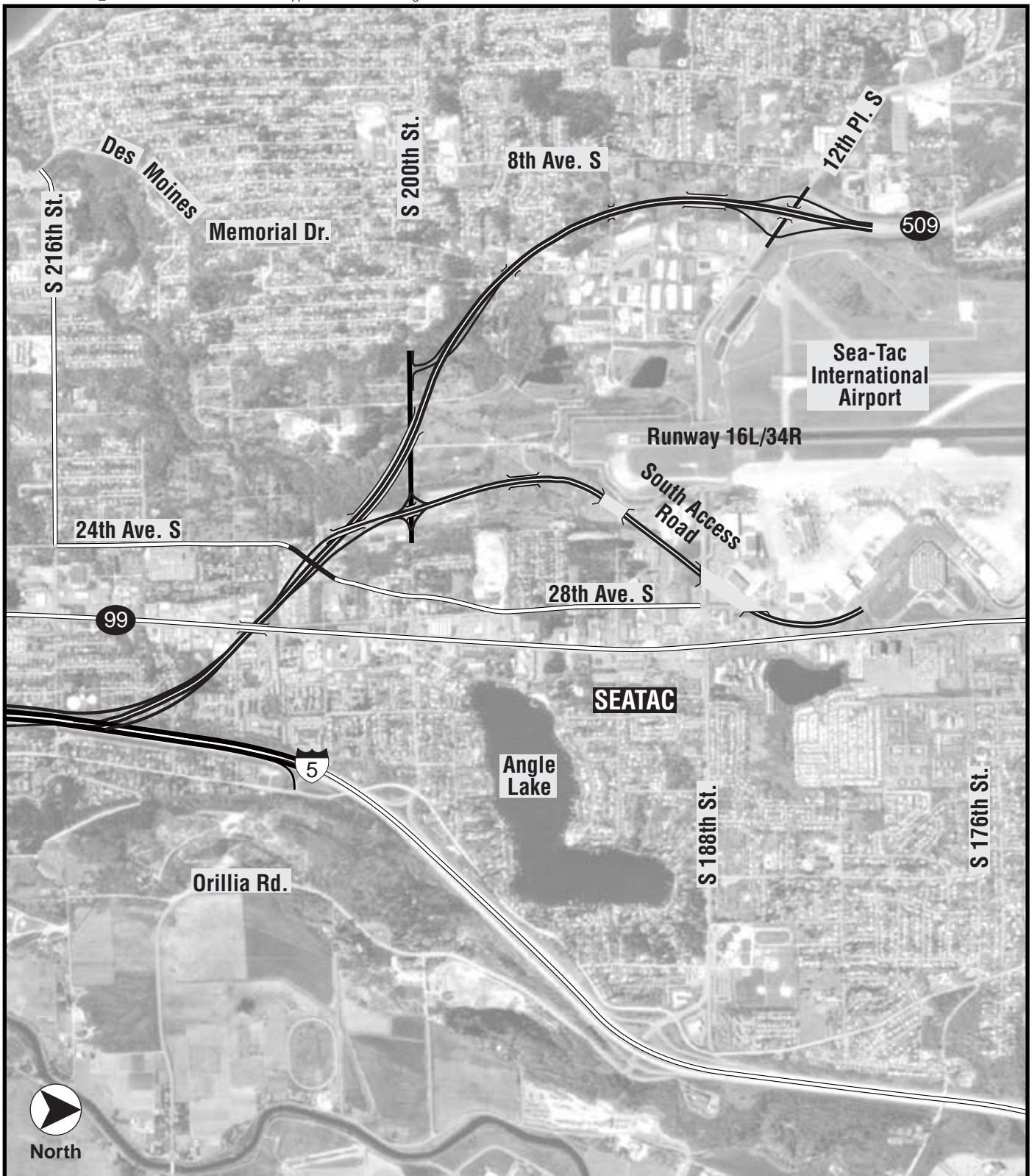
Alternative B



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Legend

SR 509/South Access Improvements



0 1/4 1/2 3/4 1 MILES

Legend

 SR 509/South Access Improvements

FIGURE F-7

Alternative C2 (Preliminary Preferred)



SR 509: Corridor Completion/I-5/South Access Road
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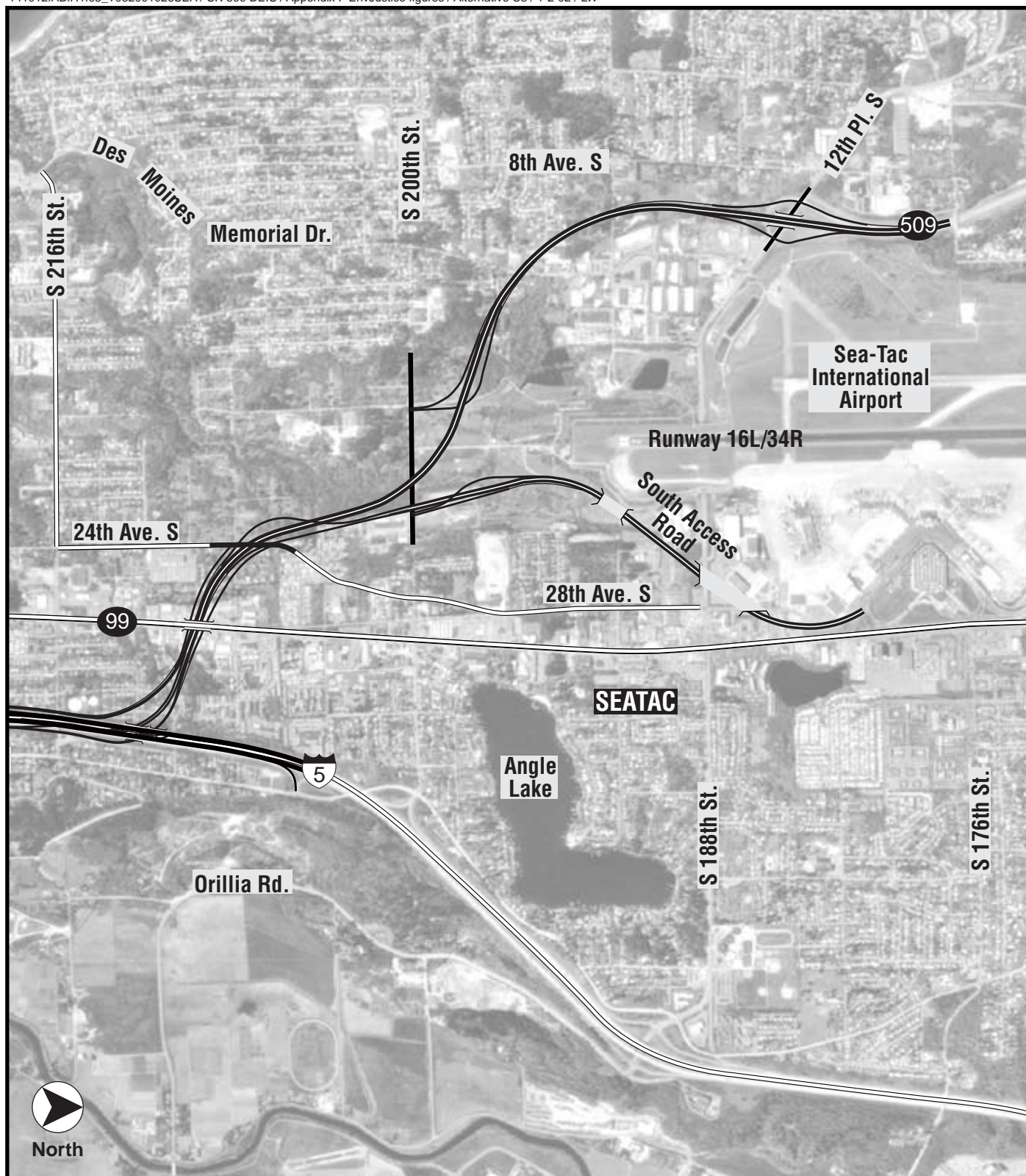


FIGURE F-8

Alternative C3



SR 509: Corridor Completion/I-5/South Access Road
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Legend

 SR 509/South Access Improvements

memorandum transmitting EO 12898 to federal agencies, President Clinton further specified that, “each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by the National Environmental Policy Act of 1969.”

Guidance on how to implement EO 12898 and conduct an environmental justice analysis has been issued by the President’s Council on Environmental Quality (CEQ 1997) and several federal agencies, including the U.S. Department of Transportation (DOT Order 5610.2) and the FHWA (FHWA Order 6640.23).

FHWA Order 6640.23 provides guidance on determining when a disproportionately high and adverse impact is likely and how to respond if such a finding is made. When determining whether a particular program, policy, or activity

“...will have disproportionately high and adverse effects on minority and low-income populations, FHWA managers and staff should take into account mitigation and enhancement measures and potential offsetting benefits to the affected minority or low-income populations. Other factors that may be taken into account include design, comparative impacts, and the relevant number of similar existing system elements in non-minority and non low-income areas. FHWA managers and staff will ensure that the programs, policies, and activities that will have disproportionately high and adverse effects on minority populations or low-income populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not practicable. In determining whether a mitigation measure or an alternative is “practicable,” the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account. FHWA managers and staff will also ensure that any of their respective programs, policies or activities that have the potential for disproportionately high and adverse effects on populations protected by Title VI (“protected populations”) will only be carried out if:

- (1) a significant need for the program, policy or activity exists, based on the overall public interest; and
- (2) alternatives that would have less adverse effects on protected populations have either:

- (a) adverse social, economic, environmental, or human health impacts that are more severe; or
- (b) would involve increased costs of an extraordinary magnitude.

Any relevant finding identified during the implementation of this Order must be included in the planning or NEPA documentation that is prepared for the activity.”

Methodology and Approach

The proposed project alternatives were evaluated for compliance with EO 12898 and FHWA Order 6640.23. For this type of analysis, three fundamental evaluation measures are used.

1. *A determination is made as to which impacts of the alternatives are high and adverse.*

The series of discipline reports prepared for the Revised DEIS were reviewed, and discussions with discipline report authors were conducted to determine which environmental or human health impacts could reach the level of high and adverse after proposed mitigation measures were implemented. Since there is no official guidance on the definition of “high and adverse” in any environmental justice order or guidance document, for purposes of this analysis, NEPA significant adverse impacts, as identified by the professional analysts working on this Revised DEIS, were considered to be synonymous with high and adverse impacts as described in EO 12898 and FHWA Order 6640.23.

2. *A determination is made as to whether minority or low-income populations exist within the high and adverse impact zones.*

For information on the distribution of minority and low-income populations in the SR 509: Corridor Completion/I-5/South Access Road project area, both 2000 and 1990 U.S. Census data were used. Race and income data were reviewed at the finest level available from the U.S. Census Bureau (i.e., U.S. Census Block for race, and U.S. Census Block Group for income). At the time of this analysis, race data from the 2000 U.S. Census were available and reviewed. Income data from the 2000 U.S. Census were not scheduled to be released until April 2002. In lieu of these newer data, 1990 U.S. Census data on income were reviewed. For additional background, other sources of demographic information were also reviewed. These sources included school enrollment data and anecdotal information from discussions with local officials, business owners, and public meeting attendees.

3. *The spatial distribution of high and adverse impacts is reviewed to determine if these impacts are likely to fall disproportionately on the minority or low-income population.*

Since there is no specific guidance in EO 12898 or FHWA Order 6640.23, the test of disproportionality is made on the basis described in the U.S. Environmental Protection Agency's (EPA) *Draft Revised Guidance for Investigating Title VI Administrative Complaints Challenging Permits* (U.S. EPA June 2000). This guidance suggests using two to three standard deviations above the mean as a quantitative measure of disparate effect.

While the first two elements of this approach were conducted, no detailed distribution analysis was required to make a final determination. This was because professional analysts in each environmental and human health discipline determined that no high and adverse (i.e., NEPA significant) human health or environmental effects were expected to remain after implementation of proposed mitigation measures.

Outreach to Minority and Low-Income Populations

A public involvement program has been conducted in the project area over a period of more than eight years. As a consequence, the project is well known to residents in the project area. Because none of the initial sources of demographic information used for this analysis (such as 1990 U.S. Census data, school enrollment, and discussions with local officials, business owners, and residents who participated in numerous public meetings) indicated the existence of high minority or low-income populations, the outreach was not targeted to reach any specific group. The exception was an effort to specifically inform and involve residents (and owners) of mobile home parks in the project area. Because of the advanced age of many of the mobile homes, the potential for low-income residents was believed to be high. More recently, with the release and examination of 2000 U.S. Census data, and in light of observations made at the January 2001 public meeting, WSDOT has committed to publish future meeting announcements in Spanish and Vietnamese, as well as in English.

Outreach and involvement efforts focused on the general public have included the following:

- Six newsletters mailed to residents, their political representatives, and local officials
- Individual letters mailed to potentially affected residences and businesses
- Two public scoping meetings

- Six public open houses
- Multiple news releases to newspapers of general circulation and the minority press
- Newspaper articles, including interviews with mobile home owners
- One public hearing

In addition, attempts were made to conduct special information exchange meetings within the mobile home parks, using their community rooms; the park owners declined. Another attempt was made to conduct a special information exchange meeting at the nearby fire station, targeted at residents of the mobile home park that would be impacted by the build alternatives. When it was learned that using the fire station's community room is not permitted during evening hours (which are most convenient time for working residents), this attempt was abandoned. Nevertheless, mobile home park residents have participated in the general open houses and hearings. During the open houses, project staff talked informally with participants. The general consensus of mobile home park residents, like that of most residents who have expressed an opinion, is favorable to the project. The findings that emerged from the public meetings were corroborated by a *Seattle Post-Intelligencer* article in March 1999 (see Appendix B in CH2M HILL September 2001), which was based on an interview with residents of the mobile home park that would be substantially displaced.

Affected Environment

Distribution of the Minority Population

Based on the 2000 U.S. Census, the total population of the area within approximately one-half mile from the build alternatives is approximately 67,410. The minority population comprises approximately 33 percent of this total population. Figures F-9 and F-10 identify the minority population percentages of U.S. Census Blocks in the vicinity of the build alternatives based on 2000 U.S. Census data. As shown in Figures F-9 and F-10, many U.S. Census Blocks in the project area are below 50 percent minority; however, several U.S. Census Blocks west of I-5 and others east of Sea-Tac Airport are above 50 percent minority. These latter U.S. Census Blocks have minority population densities high enough (i.e., greater than 50 percent) to be considered minority populations based on the guidance contained in CEQ (1997).

Distribution of the Low-Income Population

Based on the 1990 U.S. Census (the most recent U.S. Census for which income data are available), the total population of the area within

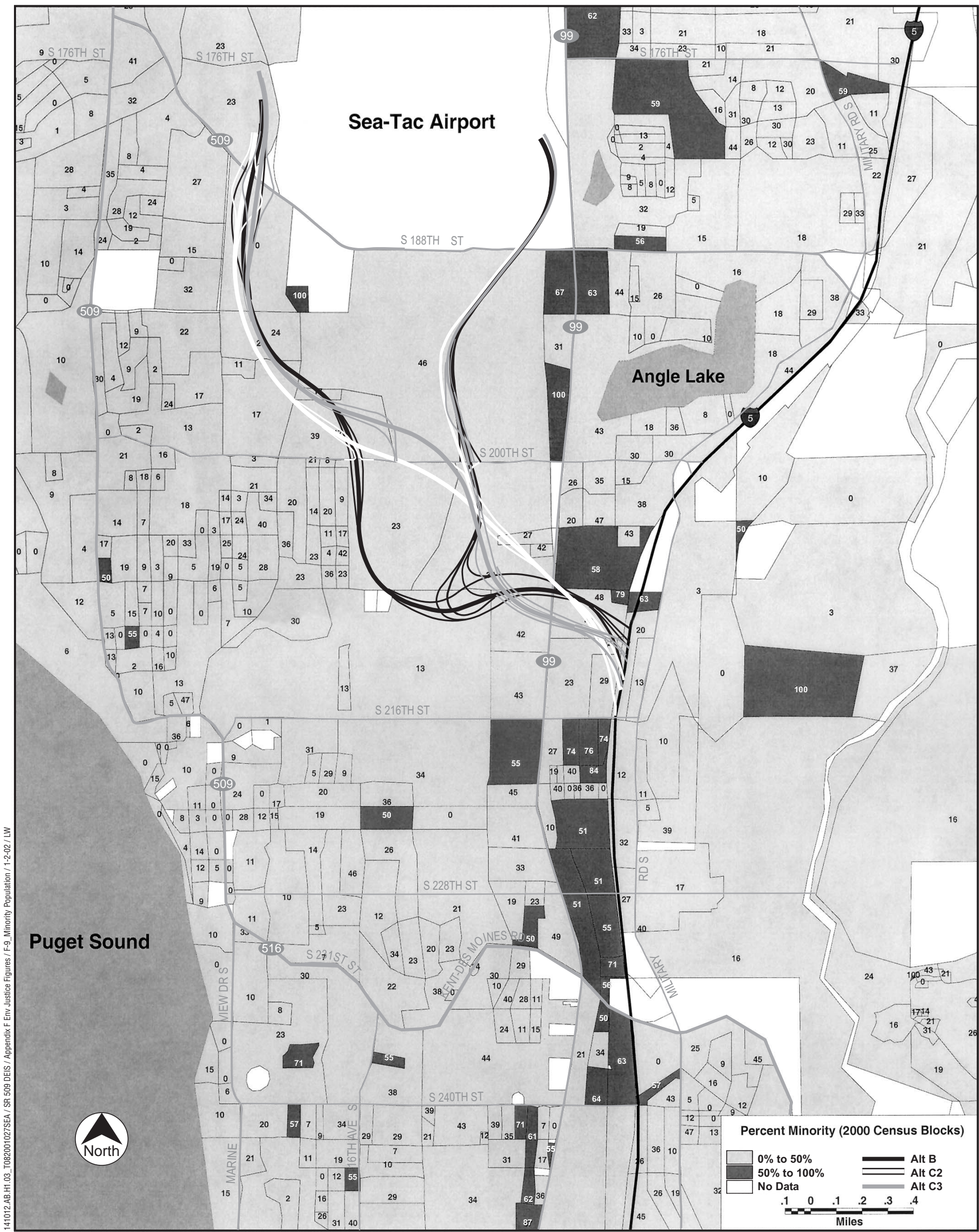



FIGURE F-9
**Minority Population in the SR 509
Build Alternatives Area**

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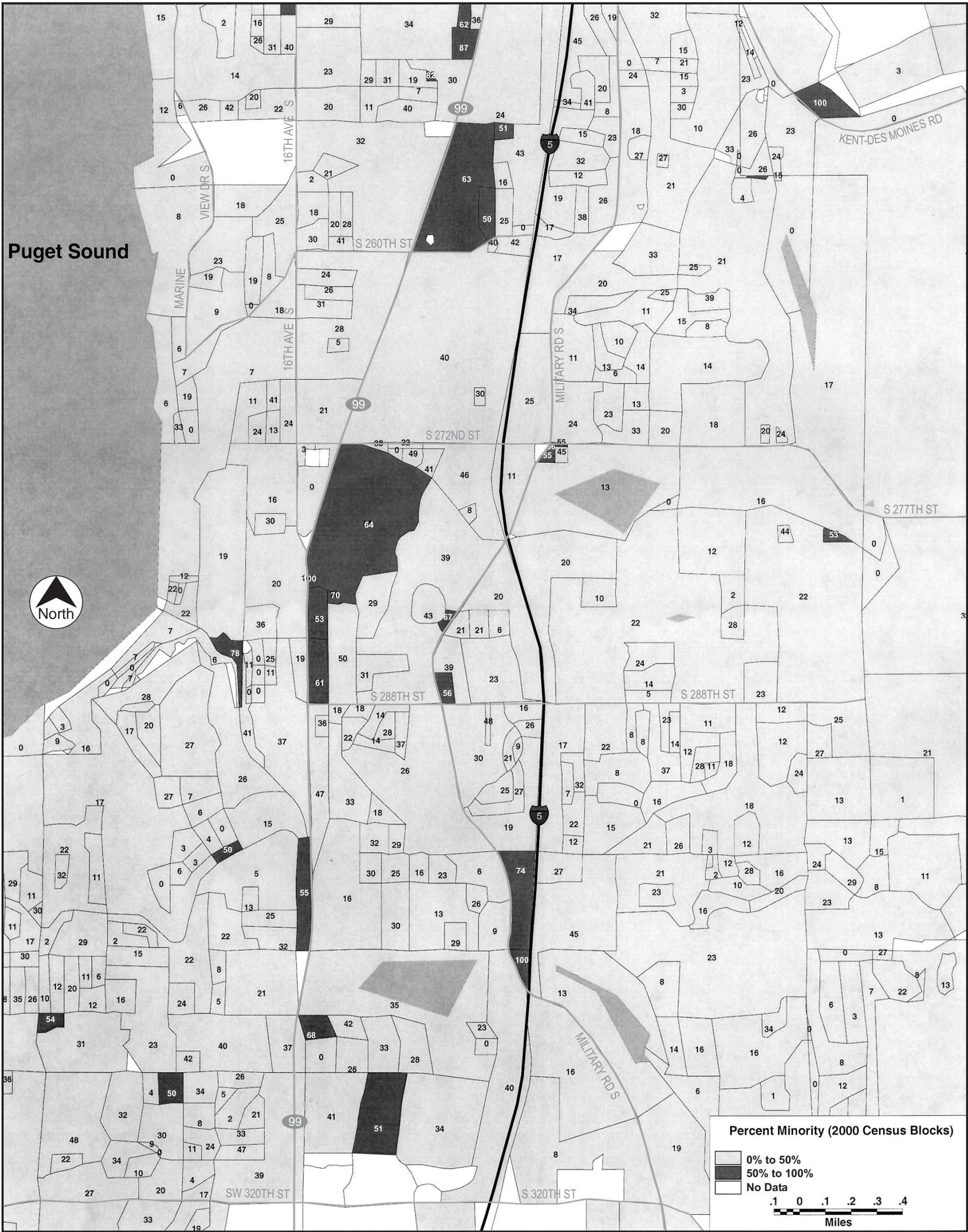


FIGURE F-10
**Minority Population in the
I-5 Corridor Area**



SR 509: Corridor Completion/I-5/South Access Road
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approximately one-half mile from the build alternatives was approximately 60,656. The low-income population comprised approximately 7 percent of this total population. Figures F-11 and F-12 identify the low-income population percentages of U.S. Census Block Groups in the vicinity of the build alternatives based on 1990 U.S. Census data. As shown in Figures F-11 and F-12, most of the U.S. Census Block Groups in the project area have low-income population percentages in the single digits; however, several U.S. Census Block Groups adjacent to I-5 have low-income population percentages of 10 percent or higher.

Unlike the CEQ (1997) guidance on minority population, no environmental justice order or guidance document contains a quantitative definition of how many low-income individuals it takes to compose a low-income population. In the absence of guidance, for this analysis the density used to identify minority populations (i.e., 50 percent or greater) was also used to identify low-income populations. There is no U.S. Census Block Group in the project area with 50 percent or more low-income population.

Environmental Consequences and Conclusion

As discussed in the *Methodology and Approach* section above, for purposes of this analysis, NEPA significant adverse impacts are considered synonymous with high and adverse impacts as described in EO 12898 and FHWA Order 6640.23. As reported in the series of discipline reports prepared for the Revised DEIS, and further confirmed through discussions with the report authors, no significant adverse impacts are expected as a result of this project after proposed mitigation measures are implemented. Consequently, no project impacts can be described as high and adverse in the context of EO 12898 or FHWA Order 6640.23. As there are no high and adverse impacts expected as a result of this project, this analysis therefore concludes that no high and adverse human health or environmental effects of this project are expected to fall disproportionately on minority or low-income populations. The SR 509: Corridor Completion/I-5/South Access Road Project can therefore be considered to be consistent with the policy established in EO 12898 and FHWA Order 6640.23.

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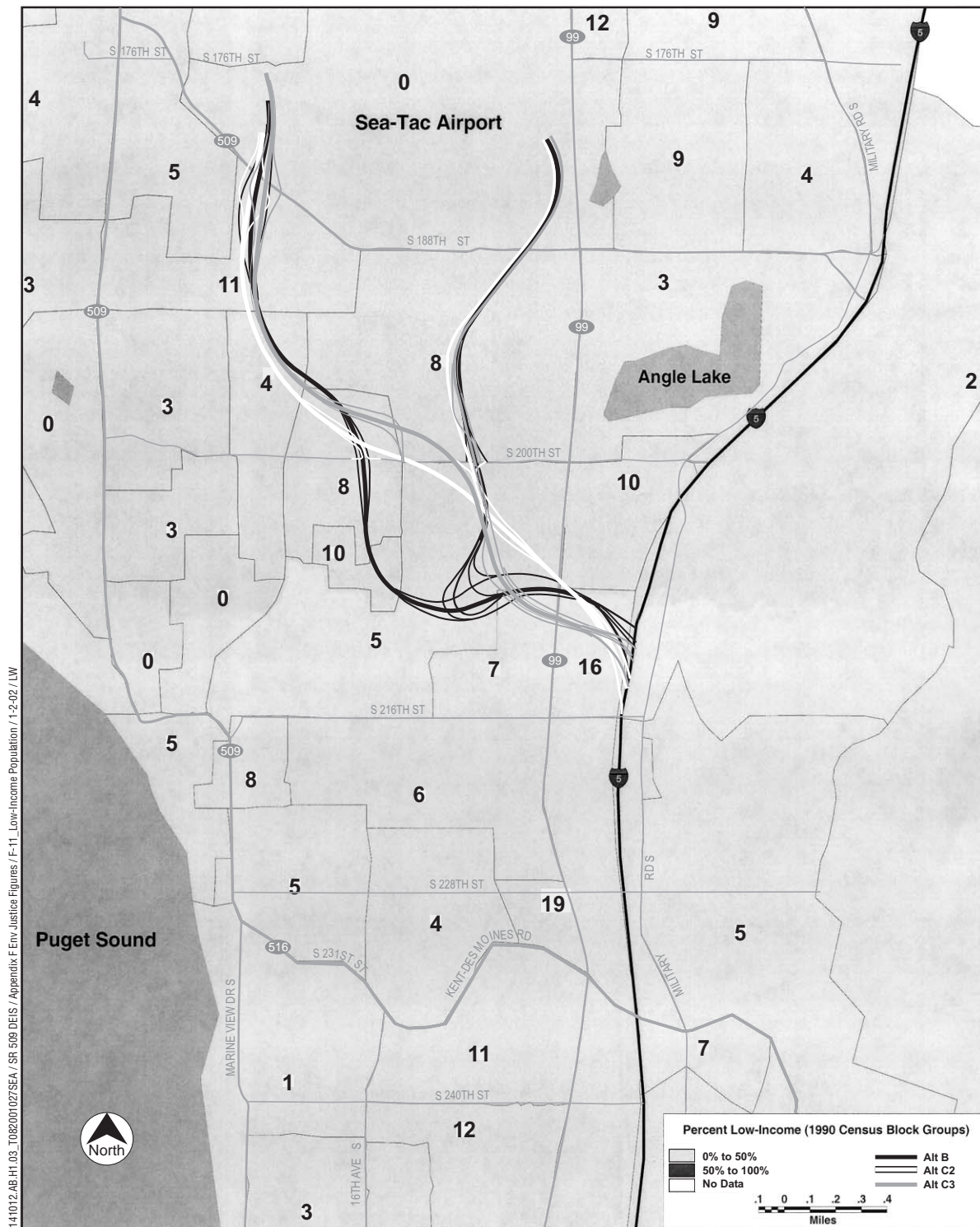


FIGURE F-11

Low-Income Population in the SR 509 Build Alternatives Area



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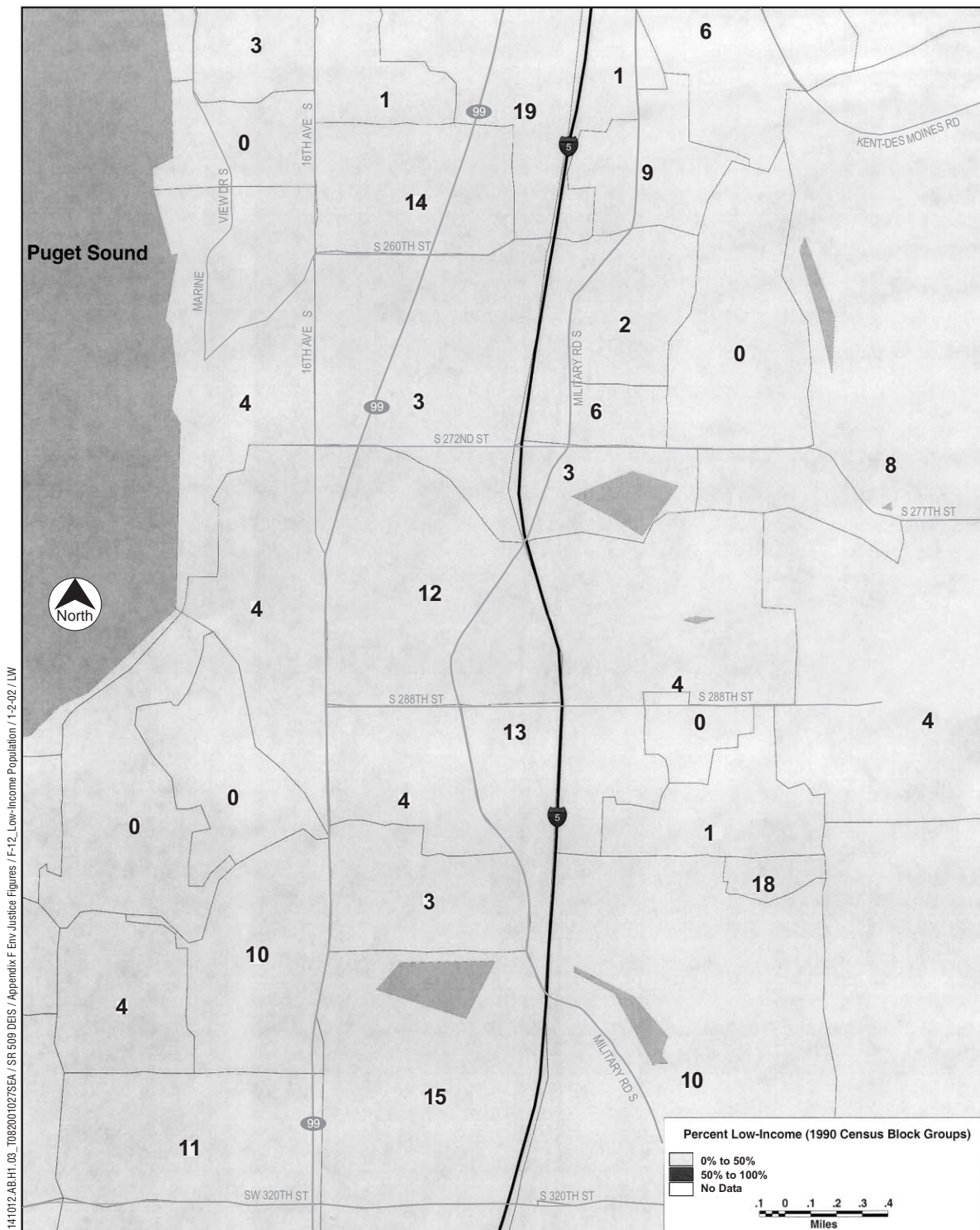


FIGURE F-12
**Low-Income Population in the
 I-5 Corridor Area**



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